Ministry of Environment and Tourism

Environmental Investment Fund of Namibia | ensuring sustainability




Delivering transformative impacts on the ground

Contribution of projects mobilized through the Ministry of Environment and Tourism from 2014-2019

Contents

Pohamba Shifeta, MP
Minister of Environment and Tourism

Message from the Minister

In spite of Namibia's classification as a middle income country, the Ministry of Environment and Tourism and the Environmental Investment Fund of Namibia have been hugely successful in mobilizing resources through both multilateral financing mechanisms and bilateral cooperation.

A total of 12 projects have been mobilized through the Green Climate Fund, Global Environment Facility and the Adaptation Fund over the past 5 years with an overall value of N$1.21 billion at the 2019 exchange rate. These projects cover the areas of biodiversity conservation, climate change adaptation and mitigation and combating land degradation.

In terms of bilateral cooperation, five projects are under implementation or have been implemented with support from the German Government worth N$665.6 million at the 2019 exchange rate. These projects are implemented in partnership with GIZ and the German Development Bank (KfW).

These projects have been designed mainly to pilot and demonstrate new innovations and technologies as Namibia increases its efforts to mitigate and adapt to climate change, halt biodiversity loss and combat land degradation and desertification. Particularly prominent have been new approaches to agriculture such as hydroponics, community gardens based on conservation agriculture and drip irrigation, fodder production as well as water harvesting.

Another major impetus has been investment into climate-friendly infrastructure, particularly in protected areas, communal conservancies and community forests. Solar-powered boreholes and the use of desalination technologies have been found to save communities money and to supply water to communities, livestock and wildlife in this period of severe drought. These have also been a central component of efforts to mitigate conflict between humans and wildlife and will leave a lasting legacy for years to come.

Last but by no means least, it is pleasing to note that all of these projects have been evaluated and audited and have been found to be implemented satisfactorily or better. What's more is that the projects have served to enhance the capacity of Namibians charged with their implementation – particularly in the fields of project management, administration and finance, communications, monitoring and evaluation among others.

I would like to take this opportunity to thank all of the donor agencies and countries that have provided support to Namibia's efforts to implement the various multilateral environmental agreements and I assure you of Namibia's commitment in tackling these pressing global environmental challenges.

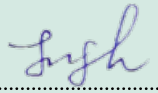
About this Report

This report outlines the main projects that have been mobilized from multilateral and bilateral sources through the Ministry of Environment and Tourism and the Environmental Investment Fund of Namibia over the period 2014-2019.

More importantly the report details the significant impacts these projects have had in terms of contributing to rural development and livelihood improvement throughout Namibia during a time when the country has been seriously affected by consecutive and severe drought events. This is the future we can expect as the devastating impacts of climate change manifests itself in this part of the world.

Faced with this challenge, we firstly need to pilot and demonstrate new innovations and technologies that make our communities more resilient to climate change and other pressing environment-related problems such as water insecurity, human wildlife conflict and poaching. This report documents these innovations and technologies and their impacts.

As the National Designated Authority and focal Ministry to various multilateral funding mechanisms, the Ministry of Environment and Tourism will continue to coordinate the development and submission of project proposals to access funding from various multilateral and bilateral windows. It will furthermore continue to ensure that these projects have a positive impact on both the current and future generations of Namibians and do its utmost to ensure that the innovations and technologies demonstrated in these projects are absorbed and upscaled by Government and other stakeholders.



Teofilus Nghitila
Executive Director

1 Introduction

Environmental issues are highly cross-cutting and have emerged as one of the critical challenges facing mankind today. Environmental issues are at the center of the Sustainable Development Goals and a wide variety of multilateral environmental agreements have been established to focus international efforts on tackling these issues.

These multilateral environmental agreements include amongst others:

i. United Nations Convention on Biological Diversity
ii. United Nations Convention to Combat Desertification
iii. United Nations Framework Convention on Climate Change
iv. Convention on International Trade in Endangered Species
v. Stockholm Convention on Persistent Organic Pollutants
vi. Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal
vii. Minamata Convention on Mercury

Namibia has ratified each of these agreements and is commonly recognized as one of the most active developing countries in their implementation. It has designed specific action plans and strategies for their national level implementation and has linked their implementation to the reduction of poverty, ensuring food security and achieving sustained economic growth and sustainable development.

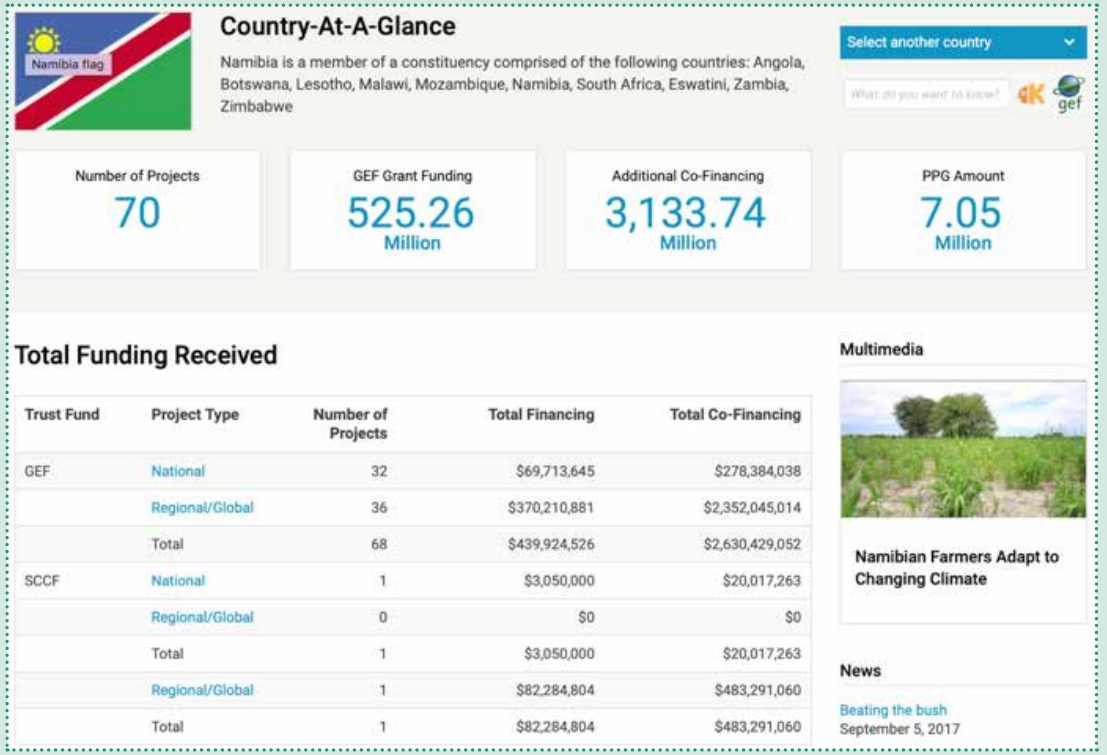
Each of the multilateral environmental agreements contain provisions related to financial resources, technology transfer, and capacity development in line with principle 7 of the Rio Declaration on common but differentiated responsibilities for environmental degradation. Namibia has sought to capitalize on these provisions and the dedicated financial mechanisms that have been established to tackle the planet's most pressing environmental problems.

This is fully in line with the actions and strategies under the Harambee Prosperity Plan, including the mobilisation of support from the international community for the war against poverty and acquiring funding to finance Namibia's climate change and renewable energy mix efforts.

Namibia's successes in mobilizing resources are presented in this publication as are some of the main impacts from the implementation of these projects.

[1] Examples of national level targets developed to implement each of the Rio Conventions are presented in Annex I.

2 Leveraging major environment-related financing windows



Overview of projects mobilized and implemented in Namibia through the Global Environment Facility (Source: https://www.thegef.org/country/namibia).

As the National Designated Authority and focal Ministry to the majority of multilateral environment-related financing windows, the Ministry of Environment and Tourism has played a major role in coordinating the development and submission of project proposals to access funding from these multilateral windows. The Environmental Investment Fund also became one of the first accredited entities to the Green Climate Fund in 2016 and is playing a major role in mobilizing funding through this window.

The key dedicated multilateral financial mechanisms include:

The Global Environmental Facility (GEF), which was established in 1992 and assists developing countries in protecting the global environment in the areas of biodiversity, climate change, international waters, chemicals management and land degradation. It provides grant and financing to countries to undertake sustainable development activities that generate global benefits, where the cost of doing so exceeds the national benefits.

Since its establishment, Namibia has been able to mobilize and implement approximately 70 national and regional projects through the GEF worth approximately US$525.26 million.

The Green Climate Fund (GCF) is a new global fund established in 2010 to support the efforts of developing countries to respond to the challenge of climate change. The GCF helps developing countries limit or reduce their greenhouse gas (GHG) emissions and adapt to climate change. It seeks to promote a paradigm shift to low-emission and climate-resilient development, taking into account the needs of nations that are particularly vulnerable to climate change impacts. When the Paris Agreement was reached in 2015, the GCF was given an important role in serving the agreement and supporting the goal of keeping climate change well below 2 degrees Celsius. The Environmental Investment Fund of Namibia was recognized as an accredited entity to the GCF in 2016 and is therefore eligible to access funding under this important window.

Other smaller financing mechanisms include the Adaptation Fund under the Kyoto Protocol of the UN Framework Convention on Climate Change to help vulnerable communities adapt to climate change and the Global Mechanism established under the Convention to Combat Desertification, which aims to promote the mobilization and channeling of financial resources to countries affected by desertification. Namibia had its first project under the Adaptation Fund approved in 2017 and has also benefitted from small scale projects and capacity building on issues such as land degradation neutrality through the Global Mechanism.

In addition to these dedicated financing mechanisms, the implementation of the multilateral environmental agreements and contributing to achieving their global targets and objectives is also at the heart of bilateral and regional cooperation on environmental issues with many partners such as Germany, India and the European Union amongst others.

Namibia has also ratified a number of protocols at the SADC level including on environmental management, wildlife conservation and law enforcement and shared watercourses. These have led to the establishment of regional bodies such as the Benguela Current Commission and transfrontier conservation areas (TFCAs) such as the Kavango Zambezi (KAZA) TFCA, which are also important vehicles for attracting funding.

3 Overview of funds mobilised

This section presents an overview of the projects implemented or under implementation during the period 2014-2019.

In summary, a total of 12 projects have been mobilized from multilateral sources over the past 5 years with an overall value of N$1.21 billion at the 2019 exchange rate. The Ministry of Environment and Tourism has mobilized seven of these projects worth a total of N$568.6 million while the Environmental Investment Fund has mobilized four of these projects funded through the Green Climate Fund and worth a total of approximately N$575.1 million. These projects are summarized in the table below:

Financing Mechanism	No. of Projects	Value (US$ million)	Value (N$ million)[2]
Global Environment Facility	7	39.05	574.4
Green Climate Fund	4	39.1	575.1
Adaptation Fund	1	4.1	60.3
Total	**11**	**77.75**	**1.21 (billion)**

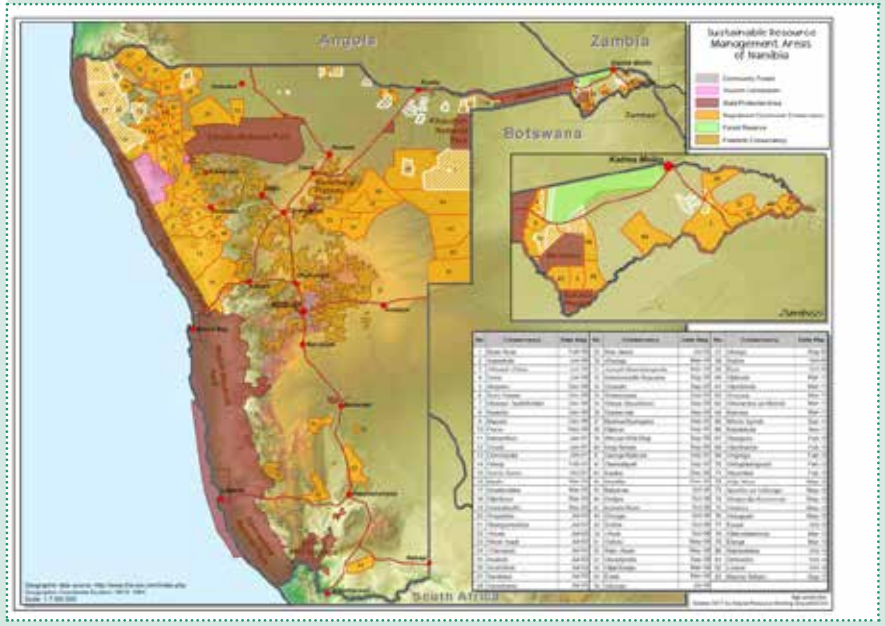
In terms of bilateral cooperation, a total of approximately N$1.4 billion has been mobilized. Of this, five projects have been mobilized with support from the German Government worth N$665.6 million at the current exchange rate. These projects are implemented in partnership with GIZ and the German Development Bank (KfW).

As part of the bilateral cooperation funding, one credit facility worth N$734.1 million at the current exchange rate has been established through the Environmental Investment Fund, in collaboration with the French Development Agency, to support entrepreneurs in the areas of renewable energy, sustainable agriculture and tourism development. It should be noted that these funds are availed directly to commercial banks (as a loan) while these banks offer loans in turn to entrepreneurs at concessional rates.

[2] Based on the current exchange rate (2019).

4 Delivering transformative impacts

The projects summarized in Annex II have mainly targeted communities residing in communal areas as this is where the socio-economic needs are greatest. Protected areas, communal conservancies and community forests throughout the country have been mainly supported by projects such as NamParks IV and V, PASS Project, NAMPLACE, NAFOLA, CBNRM EDA and the CBNRM MET-GIZ Project. The northern communal areas have been the main target of climate resilient agriculture interventions that have been pioneered through the CRAVE, SCORE and the soon to be implemented NILALEG Project while the provision of water through alternative means has been undertaken throughout the country by a range of projects.



Map showing the coverage of protected areas, communal conservancies and community forests in Namibia.

The mode of intervention has differed between projects but it is important to note that almost each project has resulted in lasting investments that are intended to enhance the resilience of beneficiaries to climate change and other environment-related challenges.

The CBNRM EDA Project has pioneered the approach of handing over grants directly to communal conservancies and community forests for them to implement projects mainly aimed at climate proofing infrastructure development. In June 2018, a total of 19 grants projects worth N$86 million were handed over to communal conservancies in eight (8) regions, namely Kunene, Kavango East, Kavango West, Zambezi, Omusati, Otjozondjupa, Oshikoto and Ohangwena. A second call for proposals from communal conservancies for the CBNRM EDA facility was advertised in 2019.

Hon. Pohamba Shifeta (Minister of Environment and Tourism) and Mr. Benedict Libanda (CEO of the Environmental Investment Fund) handing over the grant to the Chairpersons of the Doro !Nawas, #Khoadi //Hoas and Khoro !Goreb conservancies.

Law Enforcement Training Center established at Waterberg Plateau Park.

The impacts of the projects are broken down according to the following broad areas of support:

- Conservation and sustainable utilization of wildlife
- Climate resilient agriculture
- Enhancing water security in the time of drought
- Use of renewable energy to power infrastructure in communal conservancies
- Building the capacities of Namibians in environmental management

4.1 Conservation and Sustainable Utilization of Wildlife

Intensifying the fight against poaching and wildlife crime

Faced by an increasingly sophisticated poaching threat over recent years, the Ministry has identified the need to step up the use of technologies and innovative approaches for the better surveillance and detection of poaching activities. The following important interventions were made in support of anti-poaching operations:

- Construction of the Law Enforcement Training Centre at Waterberg Plateau National Park, which provides for ongoing, incremental training and capacity building on innovative approaches and technologies to prevent wildlife crime;
- Operationalization and development of anti-poaching flycamps in protected areas and conservancies; and
- Development and operationalization of a state-of-the art anti-poaching command centre in Etosha Park.

The involvement of communities and the general public in the prevention of wildlife crime is key and the PASS Project provided particular support to the development and implementation of a public anti-poaching awareness-raising campaign.

Director of Wildlife and National Parks, Mr. Colgar Sikopo, at one of the six permanent billboards erected at strategic points along national roads to raise awareness among Namibians and tourists of the need to stop poaching and the importance of reporting wildlife crime.

Examples of technology and equipment used in anti poaching operations – amphibious (all terrain) vehicle, satellite phones and metal detector for crime scene investigation.

Supporting communities to mitigate human wildlife conflict

Human wildlife conflict has emerged as a major challenge, particularly in the north-western and north-eastern regions. Considerable work has been undertaken to research and monitor animal movements and a number of interesting technologies have been deployed to lessen the impact of wild animals on communities in hotspot areas. This has been accompanied by substantive investment in infrastructure to provide alternative water sources for wild animals and to protect community water points from damages associated with elephants.

i. Construction of 11 predator proof kraals in conservancies in the Kunene Region.
ii. Collaring of 12 elephants and 15 lions was undertaken in hotspot areas to understand and track the movements of these animals as part of early warning and rapid response system for human wildlife conflict.
iii. Handover of 13 grain storage containers to communities in Ohangwena Region.
iv. Construction of elephant dams and rehabilitation of boreholes at 7 conservancies in Kunene Region, three conservancies in Erongo Region and three conservancies in Kavango East Region.
v. Production of chili bombs to deter elephants in NC Regions.

Example of predator-proof kraal constructed at Torra Conservancy in the Kunene Region.

Example of predator-proof kraal constructed at Torra Conservancy in the Kunene Region.

The former Luderitz Post Office which has been renovated and is now the headquarters of the Tsau //Khaeb (Sperrgebiet) National Park.

Enhancing infrastructure in national parks

Namibia's national parks are a key tourism attraction and the provision of high quality infrastructure in national parks has been a key focus area to safeguard biodiversity, improve management effectiveness and to enhance the tourist experience in national parks. This has included substantive investment into park fencing, entrance gates, reception areas and offices, signage, housing and roads.

Improving management effectiveness of national parks

Managing national parks according to management plans is an important method of safeguarding biodiversity and in guiding the sustainable development of tourism-related activities in national parks. Different projects have supported the development of management plans for a number of national parks including the Tsau //Khaeb National Park, the north-eastern Parks, Dorob National Park, Skeleton Coast and Namib-Naukluft Park.

Construction of new entrance gate to the Bwabwata National Park.

4.2 Climate Resilient Agriculture

Establishment of a Centre of Excellence for climate resilient agriculture

The Mashare Agricultural Development Institute (MADI) in Kavango East Region has been transformed into a climate resilience center of excellence for the training of small scale farmers on alternative farming practices and sustainable agriculture development. The upgrade is expected to be finalized by December 2019 and a five-year Strategic Plan (2018-2022) is targeting to train over 3,000 farmers per annum.

The MADI also demonstrates how the use of solar panels and other alternative energy technologies can deliver considerable savings to farmers. A 150-kiloWatt solar photovoltaic combined 380x130kw system was installed and provides 100% of the Centre's electricity needs. The solar system is expected to last more than 30 years and the center is also feeding electricity into the grid.

380x130kw PV Solar Panels installed at Mashare Agricultural Development Institute (MADI).

Mahangu production through conservation agriculture techniques at a rain-fed beneficiary site in Kavango East Region.

Implementation of Conservation Agriculture

Conservation agriculture has emerged as a key practice for climate resilient agriculture in communal areas, that has been strongly supported through the SCORE and CRAVE Projects. Under the SCORE Project, ripping services were provided to 1,297 smallholder farmers who directly benefited comprising of 796 females and 501 males. In addition, a total of 7,028 household members (3,545 females and 3,483 males) indirectly benefited from the ripping services provided during the project life span. Technical support and mentorship activities were carried out to encourage the adoption of conservation agriculture by smallholder farmers.

To support the farmers cropping practices and the adoption of comprehensive conservation agriculture and climate resilient agricultural practices for food production, process and storage, a total of 12 tractors and 12 rippers were procured under the CRAVE Project and used in Kavango East and Kavango West Regions for rain-fed production during the 2018/19 rainy season. A total of 177ha was covered with 100 (70 females and 30 males) small scale rain fed farmer beneficiaries. A total of 208 (126 females and 82 males) jobs created as tractor operators and through Youth Weeding Groups and bird scaring.

Under the CRAVE Project, demonstration sites covering 150 ha were also established for the promotion of exchanges and participation of 600 farmers that were linked to the demonstration sites for the seed multiplication and crop diversification and intercropping.

A total of 105 farmers (55 females and 50 males) have been trained on activities including tractor operations, weeding, de-stumping, fencing, bird scaring and preparation for irrigation sites.

Strengthening the adaptive capacity of communal farmers to climate change

Given the increasingly severe and frequent drought events being experienced, small-scale horticulture farmers (SSHFs) are particularly vulnerable and need to be supported to adopt more climate resilient agricultural practices.

Under the CRAVE Project, a total of 550 (340 females and 210 males) SSHFs from the three regions of Kavango West, East and Zambezi were mentored and trained on conservation agriculture practices including compost making, manure application, pest and disease control as well as handling and transportation of produces.

The provision of inputs and technologies to enhance production were also provided to farmers. A total of 13.5kg of vegetable seed varieties and 3,500kg of organic fertiliser were distributed to all regions and benefited 305 (183 female and 122 male) SSHFs in Kavango East, Kavango West and Zambezi Regions. 550 farmers benefited from sets of garden tools consisting of watering cans, rakes, spades, hand hoes, hand forks, knapsack guns.

Distribution of vegetable seed varieties and garden tools to Kavango West SSHFs during 2018 World Food Day.

Woman tending to a vegetable garden established under the SCORE Project in northern Namibia.

Insuring communal farmers against drought in northeastern Namibia

A micro-crop insurance scheme to protect SSHFs was established on 5,100ha of farm land. The CIS Protocol is a risk-based management approach that focus on firstly increasing the yield and then through management and insurance to increase the resilience of farmers in the scheme. The scheme allowed reinsurance companies such as Holland through Africanre and Namibre to expand their coverage portfolio to the small-scale crop farmers without increasing their default risk. The crop insurance scheme includes potential insurance products that is applied effectively to ensure adequate risk coverage for small-scale farmers. During the pilot phase a total of 81 farmers were involved in the pilot scheme and this will determine the feasibility and efficacy of implementing potential insurance products in Namibia. Indications so far are that the insurance scheme provided a cushion to 81 farmers and allowed them to get 750kg of household food consumption as part of the payout.

Piloting hydroponic fodder production

The Ehirovipuka Conservancy, in the severely drought-hit Kunene Region, received a grant of N$4.5 million from the CBNRM EDA Project to establish a fodder production system using hydroponics. The project is being undertaken in partnership with the Namibia University of Science and Technology and seeks to ensure food security for the affected households and provide alternative feed for livestock so that they are resilient to the ongoing drought.

Maize production under Crop insurance.

Summary of project Impacts

- 2,200 hectares under a sustainable rangeland management system.
- 6,500 beneficiaries (350 direct and 6,150 indirect) that will benefit from a subsidized supply of fodder.
- Use of solar panels to power the hydroponics system which will result in 85% less CO2 emissions compared to convention systems.
- Additional income to the conservancy from the sale of the fodder produced.
- Creation of 5 permanent jobs to manage the fodder production through the hydroponics system.

Laying the foundations for a micro drip irrigation garden.

Vegetable production under micro drip irrigation in Kavango East.

Micro-Drip Irrigation (MDI) Gardens for vegetable production with climate smart technologies specifically for water-saving purposes

Under the SCORE Project, a total of 222 MDI gardens were established and this comprised of 641 female and 386 male smallholder farmers who directly benefited from the MDI gardens. At individual levels, 106 female and 66 males smallholder farmers directly benefited from the MDI gardens as well as 748 household members (409 females and 339 males).

In addition, 62 MDI gardens were also established in various schools in the project sites. This was done to promote adoption of climate change adaptation practices at institutional levels, and to ensure that vulnerable children in the schools were targeted. In this case, a total population of 13,893 in which 7,025 female and 6,848 male learners benefited from these MDI gardens. Regular monitoring visits to MDI gardens were carried out to ensure that the gardens are well maintained.

About 229 farmers were trained on fresh vegetable production during the life span of the SCORE Prject, of which 161 were female and 83 were male. The training sessions were aimed at developing an understanding of the benefits and challenges associated with fresh vegetable production in a changing climate with more emphasis on Climate Smart Agriculture (CSA) focusing on garden establishment, MDI, Good Agricultural Practices (GAP) and conservation agriculture. The SCORE project continuously worked to empower and capacitate beneficiaries on CSA practices such as MDI system gardens, tree planting and conservation agriculture. Smallholder farmers were also trained on the proper use and maintenance of MDI systems.

Use of Earth Dams and Traditional Wells

Five earth dams were constructed through the SCORE Project for use by 13,212 female and 8,292 male beneficiaries. Dimension wise, 4 of these earth dams were 60m (length) x 60 (width) x 3m (depth) and 1 was 120m (length) x 100 (width) x 8m (depth). Furthermore 12 traditional wells were also restored for use by 2,136 female and 1,981 male beneficiaries.

Installation of the hydroponic fodder production system at Ehirovipuka Conservancy.

4.3 Enhancing Water Security during the time of drought

Desalination Plants in the //Kharas Region

Many communities in smaller towns and villages in rural Namibia are faced by the twin challenges of saline groundwater and lack of connectivity to the electricity grid. A project to develop pilot rural desalination plants using renewable power and membrane technology was approved by the Adaptation Fund in 2017 as a means to address these challenges at the Grünau settlement and the Bethanie village, located in //Kharas region.

This approximately N$60.3 million project aims to assist the treatment of poor local ground water quality to a level that complies with the national standards for drinking water using sun and wind energy to power the process known as reverse osmosis. To date, the Environmental Impact Assessments were carried out for both plants.

Summary of Project impacts:

- Previously unusable water made available to 3,478 people in Grünau settlement and Bethanie village.
- Lower water tariffs – estimated cost of N$0.39 per m3 of desalinated water compared to the current cost of N$1.04 per m3.
- Reduced CO2 emissions from conventional water generation methods.
- Employment creation in the construction and operation of the plants.

Communities forced to rely on hand-dug wells at Ohakafiya in Epembe Constituency due to the drought.

Erection of solar panel stand and installation of the panels for the borehole.

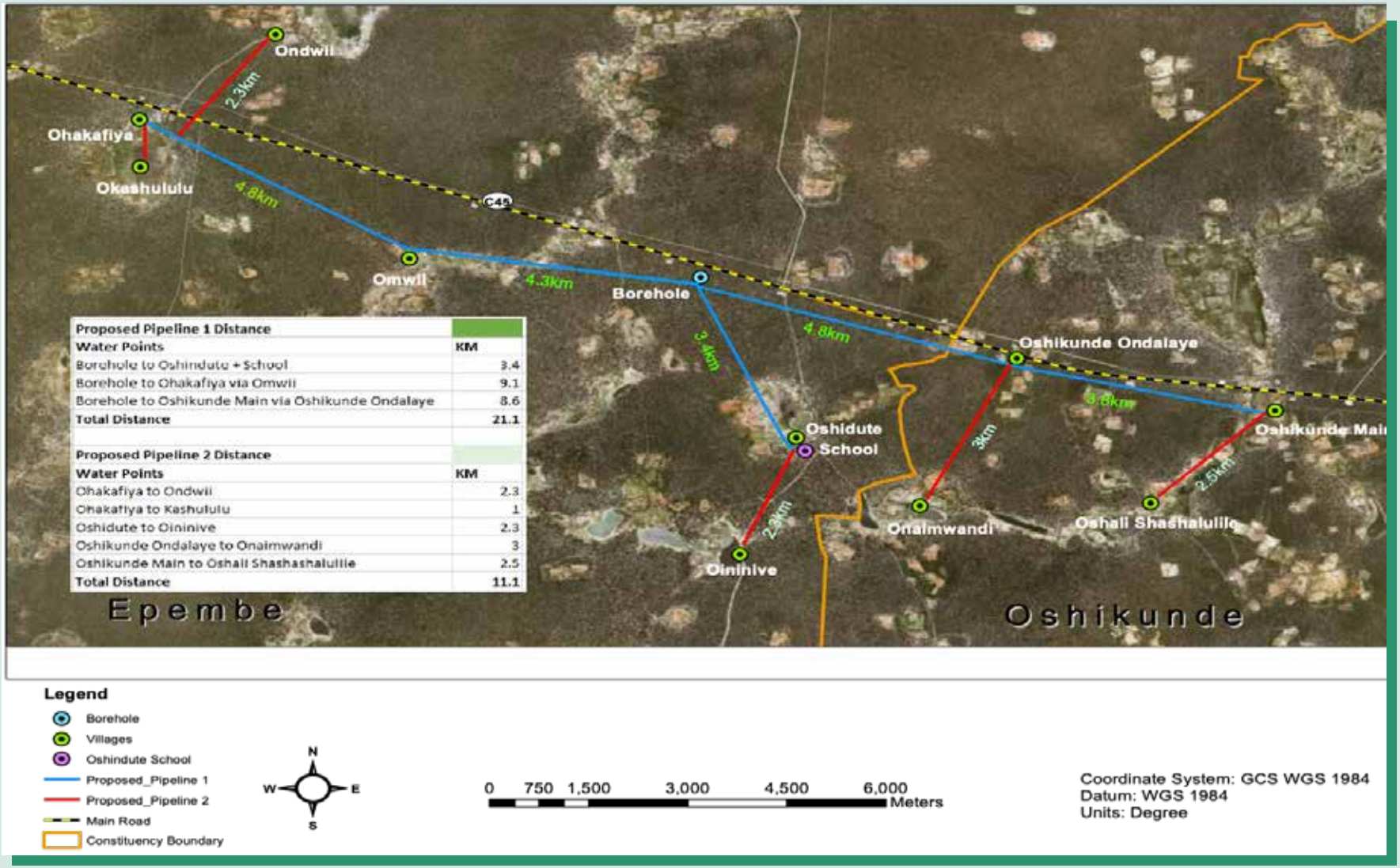
Taking urgent action to mitigate the drought in Ohangwena Region

In response to the state of emergency that was declared on drought in 2019, the supply of water to the Epembe, Oshikunde and Omundaungilo constituencies in the Ohangwena region was identified as a critical priority. An assessment indicated that:

- Most of the standard boreholes in the area (150 m) have poor water quality (high fluoride content and mostly not suitable for human consumption).
- New boreholes to be drilled should target the deep aquifer (350 m), which has better water quality.
- Drilling of new boreholes to tap into the deep aquifer (350 m), although recommended, would require substantial amount of money and will take time (2 – 3 months) before the community get water.

Given the dire situation and the state of emergency, the following actions were undertaken:

- An existing monitoring borehole (WWW201636) was converted to a water supply borehole, for immediate impact and water supply to the affected communities.
- The borehole, located in the Epembe constituency but in close proximity to the Oshikunde and Omundaungilo constituencies, was then used to supply to all 3 constituencies, within a buffer of about 10 km radius.
- The recommended borehole has a high yield > 12m3/hour and the water quality is very good (category B) and a strong solar system (heavy duty) was installed to supply as many villages in the vicinity and surrounding areas of the borehole.



Map showing how the converted borehole provided water to the adjacent villages through a phased approach.

Conservancies in Kunene Region

Under the CBNRM EDA Project, a grant of N$5.1 million was awarded to a cluster of three conservancies to rehabilitate 12 boreholes in three conservancies. The aim of this project is to introduce carbon neutral environmentally friendly water pumping and storing facilities and to promote the adoption of drought resilient indigenous livestock production systems.

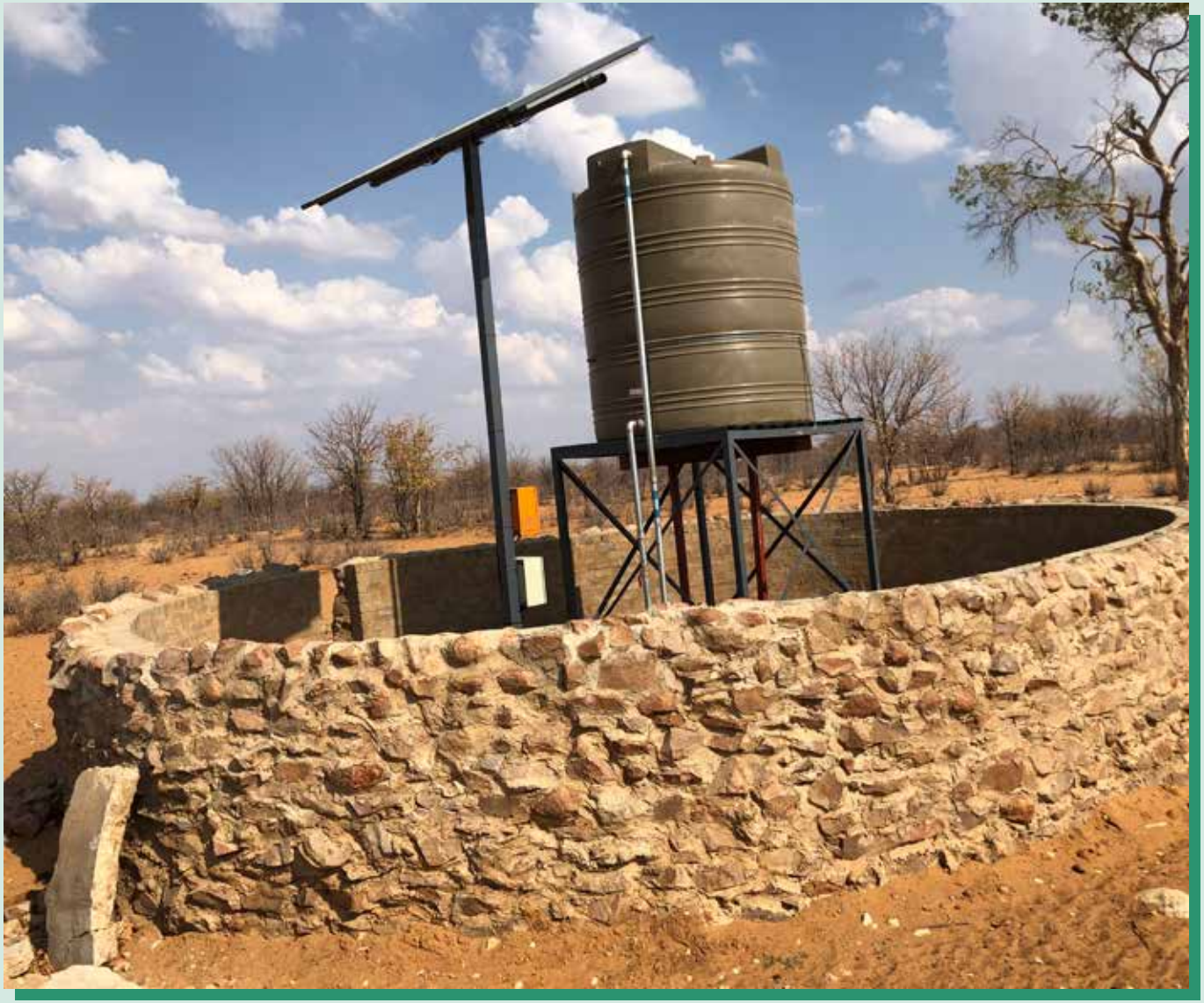
This project is implemented in the Doro !Nawas, #Khoadi //Hoas and Khoro !Goreb conservancies. These conservancies are located in the Kunene Region, which is one of the hardest hit regions by the ongoing drought and is also prone to a high number of cases of human wildlife conflict. The new solar-powered boreholes are expected to benefit 32,200 people and provide water for human consumption, wildlife (including elephants) and for backyard gardens and poultry farming.

The rehabilitation of four boreholes in #Khoadi //Hoas was completed.

Summary of Impacts in #Khoadi //Hoas

- 18,000 beneficiaries of a sustainable and reliable water source for human consumption and gardening.
- Rehabilitation of the boreholes created 14 jobs, 8 0f which were for females.
- Establishment of a self regulating water flow valve for wildlife drinking troughs linked to the boreholes

Borehole rehabilitated with solar panels, water tank, elephant protection wall and elephant tank at Makalani Pos Water Point in #Khoadi //Hoas conservancy.



Example of rehabilitated and elephant-protected borehole in the Uukwaludhi Conservancy.

Uukwaluudhi Conservancy in Omusati Region

The Uukwaludhi Conservancy, located in Omusati Region, received grant funding worth over N$4 million from the CBNRM EDA Project to rehabilitate 16 boreholes by de-installing diesel generators and retrofitting them with solar panels and solar pumps.

Summary of project impacts

- Access to water (total yield of 65m3/h) for an estimated 35,000 people, 8,000 cattle and 150 elephants.
- Monthly savings of approximately N$185,340 that was previously spent by communities to power the diesel generators at all 16 water points.
- Expected reduction in instances of human wildlife conflict in a severely affected area (80 cases per year in 2017).
- Creation of the 32 jobs to rehabilitate the boreholes.

4.4 Use of renewable energy to power infrastructure in communal conservancies

A total of almost N$21 million was handed over to George Mukoya and Muduvu Nyangana conservancies, Sorri Sorris Conservancy, Sheya Shuushona Conservancy and Omatendeka Conservancy to establish four solar power plants with a minimum capacity of 100KW to power lodges, campsites and other enterprise development activities. It is expected that all of these solar plants will be operational by February 2020.

Of these, the Sorri Sorris Conservancy in Kunene Region is most advanced having installed 216 solar panels for a plant with a 100 KW capacity.

Summary of impacts from the Sorri-Sorris solar plant

- Provision of clean electricity to more than 9,200 people.
- Generation of approximately N$720,000 per year by the conservancy from selling electricity.
- 25 jobs were created through this project and 4 women have been trained to operate and maintain the solar plant.
- Reduction of emissions and financial savings from diesel generators previously used.

View of the solar plant established at Sorri Sorris Conservancy

4.5 Building the capacity of Namibians

The Ministry of Environment and Tourism is committed to ensuring that donor-funded projects are managed and executed by young qualified Namibian professionals. It is estimated that a total of 80 Namibian graduates have been directly involved in the mobilization and execution of the projects detailed in this publication. This covers a wide range of functions including project management and coordination; administration and finance; monitoring and evaluation; communications; as well as research and proposal writing. This has resulted in the development of a considerable pool of expertise in Namibia in these fields.

The execution of the projects also stimulates economic activity and creates indirect employment for a wide variety of local consultants and service providers.

5 Moving Forward

As the National Designated Authority and focal Ministry to various multilateral funding mechanisms, the Ministry of Environment and Tourism will continue to coordinate the development and submission of project proposals to access funding from various multilateral and bilateral windows.

Environmental issues, particularly climate change, biodiversity conservation and land degradation, are inherently multi-faceted and cross-sectoral in nature. The development of proposals and projects therefore needs to be an inclusive process that identifies transformative areas of opportunities in sectors such as agriculture and land management, wildlife conservation, forestry, energy and water provision, fisheries and the marine environment.

The projects that are mobilized through multilateral and bilateral sources are also usually implemented over a short time frame of around five years. In spite of this, the technologies and innovations that are demonstrated in projects are highly significant and often need to be promoted, absorbed and upscaled through the different line sectors. It is important that these projects also contribute to changing the mindset of people as this is often the key to livelihood transformation. The urgency of climate change alone commands that new ways of doing things are promoted, adopted and embraced.

The Ministry of Environment and Tourism is committed to ensuring that all projects have a positive impact on the livelihoods of Namibians on-the-ground as well as the sustainability of the environment for the current and future generations.

Annex I: National Targets for implementation of the Rio Conventions

Measure	GHG amount	% of BAU scenario in 2030
ENERGY		
Increase share renewables in electricity production from 33% to 70%	740	3.3
Increase energy efficiency and DSM	51	0.2
Mass transport in Windhoek, car and freight pooling	510	2.3
IPPU		
Replace 20% clinker in cement production	36	0.2
AFOLU		
Reduce deforestation rate by 75 %	13 537	59.8
Reforest of 20 000 ha per year	1779	7.9
Restore 15 M ha of grassland	1359	6.0
Reduce removal of wood by 50 %	701	3.1
Afforest 5000 ha per year	578	2.6
Plant 5000 ha of arboriculture per year	358	1.6
Fatten 100 000 cattle heads in feedlots	201	0.9
Soil carbon	180	0.8
WASTE		
Transform 50% MSW to electricity and compost	205	0.9

Table 1: Namibia's national targets in terms of its Intended Nationally Determined Contribution under the UN Framework Convention on Climate Change.

1. Reforestation with local species of 1,380 ha
2. Increase productivity of 41,430 ha of forest land
3. Increase productivity of 10 million ha of grass and shrublands
4. Increase productivity of 1.5 million ha of cropland
5. Reduce bush encroachment in 1.9 Mill ha
6. Maintain current Soil Organic Carbon levels > 14 t/ha

Table 2: Land Degradation Neutrality (LDN) targets for 2030/40 in terms of the UN Convention to Combat Desertification and in pursuit of target 15.3 of the Sustainable Development Goals.

NBSAP2 Goals and Targets	Lead GRN Agencies
Strategic Goal A: Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society	
1. By 2020, at least 75% of surveyed key target groups know the meaning of biodiversity and can identify important reasons for biodiversity conservation	MET
2. By 2018, biodiversity values and prioritized ecosystem services are quantified, monitored and mainstreamed to support national and sectoral policy-making, planning, budgeting and decision-making frameworks	MET
3. By 2018, selected incentives for biodiversity conservation and sustainable use are in place and applied, and the most harmful subsidies are identified and their phase out is initiated	MET and MoF
Strategic Goal B: Reduce direct pressures on biodiversity and promote the sustainable use of biological resources	
4. By 2022, the rate of loss and degradation of natural habitats outside protected areas serving as ecological corridors or containing key biodiversity areas or providing important ecosystem services is minimized through integrated land use planning	MLR / MET
5. By 2022, all living marine and aquatic resources are managed sustainably and guided by the ecosystem approach	MFMR
6. By 2022, Principles of sound rangeland and sustainable forest management, and good environmental practices in agriculture are applied on at least 50 per cent of all relevant areas	MAWF
7. By 2022, pollution, including from excess nutrients, has been brought to levels that are not detrimental to biodiversity and ecosystem health and functioning	MET
8. By 2015, National review of invasive alien species in Namibia from 2004 is updated (including identification of pathways), and by 2018, priority measures are in place to control and manage their impact	MET
9. By 2016, ecosystems most vulnerable to climate change and their anthropogenic pressures are identified, and by 2018, appropriate adaptation measures are developed and implemented in priority areas	MET

NBSAP2 Goals and Targets	Lead GRN Agencies
Strategic Goal C: Improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity	
10. By 2018, existing terrestrial protected areas (national parks) are conserved, effectively and equitably managed, within an ecologically representative and well-connected system, and by 2020, coastal and marine areas, of particular importance to biodiversity and ecosystem services, are identified and measures for their protection initiated	MET / MFMR
11. By 2016, threatened and vulnerable species lists are updated and measures implemented by 2019 to improve their conservation status	MET
12. By 2020, Genetic diversity of cultivated plants and farmed animals is maintained and enhanced	MAWF
Strategic Goal D: Enhance the benefits to all from biodiversity and ecosystem services	
13. By 2022, ecosystems that provide essential services and contribute to health, livelihoods and well-being are safeguarded, and restoration programmes have been initiated for degraded ecosystems covering at least 15 per cent of the priority areas	MAWF / MME / MET
14. By 2015, national legislation giving effect to the Nagoya Protocol is in force and by 2018 fully operational to ensure that benefits are fair and equitably shared from the conservation and sustainable use of biodiversity	MET
Strategic Goal E: Enhance implementation of NBSAP2 through participatory planning, knowledge management and capacity building	
15. By 2020, Traditional knowledge and the innovations and practices of indigenous and local communities relevant to the conservation and sustainable use of biodiversity are recognised, respected and promoted	MRLGHRD
16. By 2022, knowledge, science base and technologies relating to biodiversity and ecosystem management are improved and made relevant to political decision-makers	MET / MYNSSC / MoE
17. By 2022, mobilization of financial resources from all sources has been increased compared to the period 2008-2012 to allow for the effective implementation of this strategy and action plan	MET / NPC/ MoF

Overview of Namibia's national targets under the Convention of Biological Diversity.

Annex II: Table of donor-funded projects mobilized through the Ministry of Environment and Tourism and Environmental Investment Fund over the past five years

	Global Environment Facility				
Project Name	**Objective**	**Implementation Status**	**Impacts**	**Funding (US$)**	**Funding (N$)**
Namibia Protected Landscape Conservation Areas (NAMPLACE) Project (2011-2016)	Protected Landscape Conservation Areas are established and ensure that land uses in areas adjacent to existing Protected Areas are compatible with biodiversity conservation objectives, and corridors are established to sustain the viability of wildlife populations.	Implemented from 2011-2016 through MET and the United Nations Development Programme (UNDP)	Five landscape conservation areas established covering over 35,000km^2.	4.5 million	66.15 million
Strengthening the capacity of the Protected Areas system to address new management challenges (PASS) Project	Ensure that the Protected Areas System of Namibia is strengthened and financed sustainably through, improving current systems for park entry and revenue generation mechanisms, improving law enforcement strategies and mechanisms to address poaching and other wildlife crimes and improving fire management in protected areas	Implemented from 2014-2018 by MET and UNDP	Supported improved management of 8 of Namibia's protected areas and 26 communal conservancies and concession areas. Types of interventions included the construction of anti-poaching training center at Waterberg, development of anti-poaching command center in Etosha, anti-poaching awareness campaigns, training in anti poaching best practices and support to communities in fire management.	4 million	58.8 million
Scaling up community resilience to climate variability and climate change in Northern Namibia with a special focus on women and children (SCORE)	Strengthen smallholder adaptive capacity for climate resilient agricultural production practices; implement flood and drought management at community level; mainstream climate change into policies and budgets.	Under implementation (2015-2019) through MET, MAWF and UNDP	Installation of micro drip irrigation systems in community gardens and at 54 schools to benefit 10,000 people. 80 lead farmers trained in conservation agriculture practices and 2,000 farmers supported with access to drought resistant seeds and ripper services. Four earth dams used by 40 villages were restored as well as 6 hand dug wells.	3.05 million	44.9 million
Sustainable Management of Namibia's Forested Lands (NAFOLA) Project	Unlock the potential of dryland forests and increase their contributions to Namibia's sustainable development objectives through sustainable forest management.	Under implementation (2014-2019) through MAWF and UNDP	13 Community Forests covering over 500,000 ha of forest lands being supported through wide scale adoption of Sustainable Land Management, Sustainable Forest Management, and other improved technologies	4.4 million	64.7 million

Namibia Integrated Landscape Approach for enhancing Livelihoods and Environmental Governance to eradicate poverty (NILALEG)	Pilot an integrated landscape management approach, reducing poverty through sustainable nature-based livelihoods, protecting and restoring forests as carbon sinks, and promoting Land Degradation Neutrality.	Under implementation since July 2019 until June 2025 through MET, MAWF, EIF and UNDP	Expected 20,818 beneficiaries at the community level in 5 pilot sites supported to combat land degradation and to develop nature-based enterprises	10.8 million	158.9 million
Integrated landscape management to reverse degradation and support the sustainable use of natural resources in the Mopane-Miombo belt of Northern Namibia	Address threats of land degradation are addressed and implement and mainstream sustainable land management in Namibia and the region, resulting in land degradation neutrality, livelihood sustainability, climate change resilience and biodiversity conservation.	At full project preparation grant stage. Project document to be submitted to GEF in March 2020 and implementation expected to commence later in 2020. To be implemented through MET, MAWF and the Food and Agriculture Organization of the UN (FAO).	Expected 10,000 beneficiaries at the community level in 5 pilot sites supported to combat land degradation and to develop nature-based enterprises	6.3 million (expected once approved)	92.7 million
Integrated approach to the pro-active management of human wildlife conflict and wildlife crime in hotspot landscapes	To incentivize wildlife conservation through the pro-active management of human wildlife conflict and wildlife crime and generation of wildlife-based benefits to rural communities in selected hotspot landscapes	At full project preparation grant stage. Project document to be submitted to GEF in March 2020 and implementation expected to commence later in 2020. To be implemented through MET and UNDP.	Number of expected beneficiaries not yet known but 3 landscapes with a population of 92,000 people adjacent to Etosha, Kunene Region and Zambezi region are expected to benefit through human wildlife conflict mitigation measures, community based tourism initiatives as well as anti-poaching operations.	6 million (expected once approved)	88.3 million
	Green Climate Fund				
Project Name	**Objective**	**Implementation Status**	**Impacts**	**Funding (US$)**	**Funding (N$)**
Climate Resilient Agriculture in three of the Vulnerable Extreme northern crop-growing regions (CRAVE) Project.	Reduce rural human population's vulnerability and food insecurity to climate risks and threats while increasing the adaptive capacity, well-being and resilience of the vulnerable small-scale farming communities in crop production landscapes that are threatened by climate variability and change.	Under implementation (2017-2022). Implemented through EIF.	Estimated 21,000 subsistence farmers supported to adopt conservation agriculture and climate resilient agriculture practices	US$10 million	147.1 million
Empower to Adapt: creating Climate-Change Resilient Livelihoods through Community-Based Natural Resource Management in Namibia (CBNRM EDA) Project.	Empower rural CBNRM communities to respond to climate change in terms of awareness, adaptive capacity and low-carbon rural development.	Under implementation (2017-2022). Implemented through EIF.	Estimated 76,500 beneficiaries in communal conservancies and community forests. The majority of this funding is being donated directly to communities in grants for community level climate change adaptation projects.	US$10 million	147.1 million

Improving rangeland and ecosystem management practices of smallholder farmers under conditions of climate change in Sesfontein, Fransfontein, and Warmquelle areas.	Improving rangeland and the ecosystem management practices of smallholder farmers under the condition of climate change in Sesfontein, Fransfontein and Warmquelle areas in the Kunene Region.	Under implementation (2019-2024). Implemented through EIF.	Estimated 44,400 smallholder farmers supported to undertake improved rangeland management practices so that they are more resilient to drought impacts in Kunene Region.	US$10 million	147.1 million
Building resilience of communities living in landscape threatened under climate change through an Eco-systems-based Adaptation approach in Namibia.	Contribute to reduction in poverty and inequality through building community resilience to climate change-induced natural disasters, which will ultimately reduce loss and increase human productivity.	Approved by the Green Climate Fund Board in 2019. To be implemented through EIF.	Estimated 216,000 beneficiaries that will be served by a grant facility that will support nature-based enterprises and environmentally-sustainable production systems.	US$9.1 million	133.8 million
	Adaptation Fund				
Project Name	**Objective**	**Implementation Status**	**Impacts**	**Funding (US$)**	**Funding (N$)**
Pilot rural desalination plants using renewable power and membrane technology	Assist the treatment of poor local ground water quality to a level that complies with the national standards for drinking water using sun and wind energy to power the process known as reverse osmosis in the Grünau settlement and the Bethanie village, //Kharas Region.	Being implemented from 2018-2022 through Namwater	Communities of Grunau and Bethanie in // Kharas Region (combined population of 3,478 people) to benefit from increased water availability through two water desalination plants powered by renewable energy.	US$4.1 million	60.3 million
	TOTAL FUNDING FOR PROJECTS SOURCED THROUGH MULTILATERAL WINDOWS				**1.21 billion**
	Main Projects sourced through bilateral cooperation				
Project Name	**Objective**	**Implementation Status**	**Impacts**	**Funding (EUR)**	**Funding (N$)**
Biodiversity Management and Climate Change Project	Coherent implementation of biodiversity and climate change related policies, strategies and practises by the MET in cooperation with other Ministries and non-governmental actors increasingly contributes to diversifying and securing the livelihoods of local users of the natural resources.	Under implementation from 2017-2020 through MET and GIZ	This project supports mainly legal and policy frameworks linked to environmental management, biodiversity conservation and climate change.	EUR 5 million	81.6 million
Resource Mobilization for Biodiversity Conservation	Improve Namibia's capacity to mobilise financial, human, technical and knowledge-based resources for biodiversity conservation, specifically to support the implementation of the objectives outlined in the second National Biodiversity Strategy and Action Plan (NBSAP 2).	Implementation completed from 2015-2018 through MET and GIZ	This project strengthened capacity of the environmental economics sector in Namibia through a number of trainings and research into the value of nature in Namibia and also supported the development of a resource mobilization strategy to increase funding into biodiversity conservation.	EUR 2.5 million	40.8 million

Namibia National Parks Programme Phase IV	The North Eastern Parks are effectively protected against pressures on resources, fulfil their corridor function for animal migration and represent a competitive destination for tourists. The residents and neighbours of the parks profit economically from the parks.	Under implementation from 2016-2019 by MET and KfW	Provided considerable infrastructural support to Namibia's north-eastern parks including vehicles, boats, construction of park stations, staff houses, rehabilitation of waterholes and signage.	EUR14.499 million	236.5 million
Namibia National Parks Programme Phase V	Coastal Parks and their support zones are sustainably managed and fair access to their natural resources is ensured thus contributing to biodiversity conservation and improved living conditions of the neighboring communities.	Under implementation from 2018-2022 by MET and KfW	Phase V is focused on Skeleton Coast Park (SCP), the Dorob National Park (DNP) with Cape Cross Seal Reserve (CCSR), the Namib Naukluft Park (NNP) as well as the Tsau // Khaeb (Sperrgebiet) National Park (TKNP). The project is improving infrastructure in these parks; supporting the implementation of the park's management plans; supporting community benefits from wildlife and conservation and the award and management of concessions; developing the tourism potential of these parks while protecting the very delicate flora and fauna.	EUR12 million	195.8 million
Support to the Coherent Implementation of the CBNRM Policy	Aims to create synergies and harmonization for CBNRM implementation.	Under implementation through MET and GIZ from 2017-2020	Providing support to human wildlife mitigation measures, mainly in Kunene Region. Supporting financial management and good governance practices in communal conservancies.	EUR 6.8 million	110.9 million
Sustainable Use of Natural Resources and Energy Financing (SUNREF) Programme	Establish green credit lines, in collaboration with local banks, to stimulate investment and improve access to green growth technologies.	Under implementation since 2017 through EIF, commercial banks (Bank Windhoek, NedBank and First National Bank) and French Agency for Development (AFD)	Both FNB and Nedbank Namibia concluded partnership agreements with AFD and have established credit lines to locally finance small scale projects dedicated to renewable energy, energy efficiency and sustainable resources management	EUR45 million (availed directly as loans to commercial banks and Government is as such not involved in implementation of this Programme).	734.1 million
	TOTAL FUNDING FOR PROJECTS SOURCED THROUGH BILATERAL WINDOWS				**1.4 billion** (*734.1 million of this is as loans)
	Total sourced through multilateral and bilateral windows				**2.61 billion**

For further information on the implementation of projects mobilized through the Ministry of Environment and Tourism and the Environmental Investment Fund of Namibia, please visit the below links:

https://www.met.gov.na
https://www.eif.org.na
https://www.thegef.org/country/namibia
https://www.greenclimate.fund/countries/namibia
https://www.giz.de/en/worldwide/323.html
https://www.kfw-entwicklungsbank.de/International-financing/KfW-Development-Bank/Local-presence/Subsahara-Africa/Namibia/

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